

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
APR 19 3 05 PM '94

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Designation and Serial No. NM-90588
2. Name of Operator Pogo Producing Company	6. If Indian, Allottee or Tribe Name
3. Address and Telephone No. P. O. Box 10340, Midland, TX 79702-7340 (915)682-6822	7. If Unit or C.A. Agreement Designation
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 480' FNL & 330' FWL, Section 18, T22S, R32E	8. Well Name and No. Livingston Ridge 18 Fed. #3
	9. API Well No. 30-025-32324
	10. Field and Pool, or Exploratory Area Under E. Livingston Ridge DeLaw
	11. County or Parish, State Lea

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input type="checkbox"/> Other
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input checked="" type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Pogo respectfully request permission to dispose of off-lease water from the above well via 3" poly line into the Texaco Getty 24 #5 SWD located NE/4, NW/4, Section 24, T22S, R31E, Eddy County.

14. I hereby certify that the foregoing is true and correct

Signed Shannon J. Shaw Title Senior Operations Engineer Date April 18, 1994

(This space for Federal or State office use)

Approved by Org. Signed by Shannon J. Shaw
Conditions of approval, if any:

Petroleum Engineer

Title Petroleum Engineer Date 5/25/94



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Carlsbad Resource Area Headquarters

P. O. Box 1778

Carlsbad, New Mexico 88220

IN REPLY REFER TO

3162

April 18, 1994

OPERATOR: Pogo Producing Company Lease No. NM-90588

WELL NO. & NAME Livingston Ridge 18 Federal #3

LOCATION: NW 1/4 NW 1/4, Sec. 18, T. 22 S., R. 32 E., Seddy County, N.M.
Lea

The check list below indicates the information needed before your Waste or Salt Water Disposal method can be approved:

<u>Delaware</u>	Name(s) of formation(s) producing water on the lease.
<u>185 BBLS</u>	Amount of water produced from each formation in barrels per day.
<u></u>	A water analysis of produced water from each zone shown in at least the total dissolved solids, ph, and the concentrations of chlorides and sulfates.
<u>500 BBL FG Tank</u>	How water is stored on the lease.
<u>3" Poly Line</u>	How water is moved to disposal facility.
<u>Texaco Getty 24 #5 SWD</u> <u>NE/4, NW/4, Sec. 24</u> <u>T22S, R31E</u>	Operator's name, well name and location, by 1/4, section, township and range, of the disposal facility. If the disposal facility is an approved disposal system, the operator's name and the name of the disposal system should suffice.

Supervisory Petroleum Engineer Technician

REACTION CHEMICAL ENTERPRISES, INC.
P.O. BOX 3868 ODESSA, TEXAS 79760-3868
915/332-4324

W A T E R A N A L Y S I S

COMPANY: POGO DATE OF RUN: 3-28-94
LEASE: LIVINGSTON RIDGE 18 SAMPLE DATE: **
WELL: # 3 RUN #
SAMPLE: ** 3821

	Mg. /L.	Meq. /L.
TOTAL HARDNESS - CaCO ₃	110,000	
TOTAL ALKALINITY - CaCO ₃	-	
TOTAL DISSOLVED SOLIDS	319,452	
CALCIUM - Ca	34,800	1,740
MAGNESIUM - Mg	5,589	458
SODIUM - Na	79,030	3,436
BARIUM - Ba	8	
BICARBONATE - HCO ₃	24	0
CARBONATE - CO ₃	0	
SULFATE - SO ₄	0	0
CHLORIDE - Cl	200,000	5,634
CARBON DIOXIDE - CO ₂	616	
HYDROGEN SULFIDE - H ₂ S	0	
TEMPERATURE	81.0	
pH	5.400	
SPECIFIC GRAVITY	1.215	
LBS/GAL	10.1	

STABILITY INDEX (Stiff-Davis)

SI=pH-pCa-pAlk-K

DEGREES F. S.I.

77 -0.42
100 -0.13
180 1.89

	CaSO ₄	Mg. /L.
SOLUBILITY	:	128,147
ACTUAL	:	0
SATURATION %	:	0

ANALYZED BY:

M. ROBESON